

**CLAIMS**

1. An isolated compound which modulates G-CSF-induced cellular responses wherein the compound inhibits or activates G-CSF activity or levels *via* a SOCS molecule.
2. The compound of Claim 1 wherein the compound up-regulates the activity or levels of SOCS-3.
3. The compound of Claim 1 wherein the compound down-regulates the activity or levels of SOCS-3.
4. The compound of any one of Claims 1 to 3 wherein the compound is a nucleic acid molecule.
5. The compound of Claim 4 wherein the nucleic acid molecule is an oligonucleotide.
6. The compound of Claim 4 or 5 wherein the nucleic acid molecule is mRNA, RNAi, siRNA or DNA or a complex containing same.
7. The compound of Claim 6 wherein the nucleic acid molecule is a sense or antisense oligonucleotide.
8. The compound of any one of Claims 1 to 3 wherein the compound is a proteinaceous molecule.
9. The compound of any one of Claims 1 to 3 wherein the compound is a non-protein chemical.

10. A pharmaceutical composition comprising a component of any one of Claims 1 to 11 and one or more pharmaceutically acceptable carriers and/or diluents.
11. The pharmaceutical composition of Claim 10 wherein the composition is a nucleic acid molecule.
12. The pharmaceutical composition of Claim 11 wherein the composition is a gene therapy composition.
13. A method for modulating G-CSF-induced cellular responses in a mammal, said method comprising administering to said mammal an effective amount of a compound of any one of Claims 1 to 9 or a composition of Claim 10 or 11 or 12.
14. The method of Claim 13 wherein the mammal is a human.
15. The method of Claim 13 or 14 wherein the compound inhibits or elevates levels of SOCS-3.
16. An animal model useful for screening for compounds which modulate G-CSF-induced cellular responses, said model comprising a genetically modified animal which comprises cells which produce elevated or reduced levels of SOCS-3.
17. The animal model of Claim 16 wherein the animal is a non-human primate, lower primate, mouse, rat, rabbit, sheep, goat or pig.